

ABSTRACT

A method of making a thermally-removable adhesive is provided where a bismaleimide compound, a monomeric furan compound, containing an oxirane group an amine curative are mixed together at an elevated temperature of greater than approximately 90°C to form a homogeneous solution, which, when cooled to less than approximately 70°C, simultaneously initiates a Diels-Alder reaction between the furan and the bismaleimide and a epoxy curing reaction between the amine curative and the oxirane group to form a thermally-removable adhesive. Subsequent heating to a temperature greater than approximately 100°C causes the adhesive to melt and allows separation of adhered pieces.